

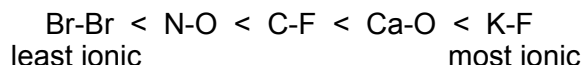
Assignment 8.1 #23-27 odd, 32, 35, 38

- 23) a. $C < N < O$ c. $Sn < Ge < Si$
 b. $Se < S < Cl$ d. $Tl < Ge < S$

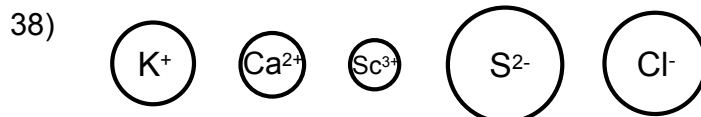
- 25) a. Ge - F b. P - Cl c. S - F d. Ti - Cl

- 27) 23a. correct 23b. correct
 23c. Sn, Ge and Si all have the same electronegativities
 23d. Tl and Ge have the same electronegativities
 25a. Si - F and Ge - F have the same polarity
 25b - 25d. Correct as predicted

- 32) The greater the difference in electronegativities, the greater the ionic character of the bond.



- 35) a. Sc^{3+} has same electron configuration as Ar
 b. $Te^{2-} = [Xe]$
 c. $Ce^{4+} = [Xe]$ $Ti^{4+} = [Ar]$
 d. $Ba^{2+} = [Xe]$



All 5 have electron configuration of [Ar]. The more electrons, the larger the ion, due to more electron repulsion.